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(54) **SYSTEM AND METHOD FOR DYNAMICALLY ESTIMATING ACTIVE POWER CAPABILITY OF AN INVERTER-BASED RESOURCE**

(57) A method for controlling an inverter-based resource (IBR) having a power converter and a generator connected to an electrical grid includes determining an available active power of the electrical grid. The method also includes determining an available active power of the IBR based on an effect of a speed and a rating of the generator. Further, the method includes determining a minimum available active power based on the available active power of the electrical grid and the available active power of the IBR. Moreover, the method includes determining an active power limit change for the IBR based on one or more thermal margins of the IBR. In addition, the method includes determining an active power estimation as a function of the minimum available active power and the active power limit change. The method further includes providing the active power estimation to a supervisory controller for controlling the IBR.

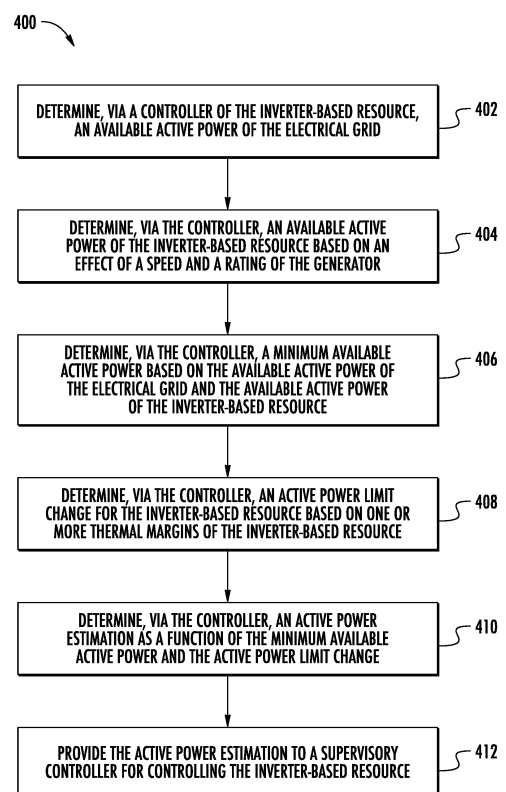


FIG. 7



EUROPEAN SEARCH REPORT

Application Number

EP 22 19 8488

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Place of search

Date of completion of the search

Examiner

Munich

27 March 2023

Hurtado-Albir, F

CATEGORY OF CITED DOCUMENTS

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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